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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,912	01/17/2002	Yong-Jun Lim	Q67327	3408

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EXAMINER	
SHAW, PELING A	

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/046,912	LIM, YONG-JUN	
	Examiner	Art Unit	
	Peling A. Shaw	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/20/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. This application claims a priority # Republic of Korea 2001-38804 on 06/30/2001. A certified copy of the foreign application is in the application.

Specification Objections

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections – 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 and 5-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nelson, et al., (U.S. Patent Number 5,568,641), hereinafter referred as Nelson.

a. Regarding claim 1, Nelson disclosed (in abstract, line 6-14 and 18-20, column 2, line 22-40, Fig. 1A and Fig. 2) a network device (system) capable of upgrading software, comprising monitoring means (powerfail), a first memory (boot block), a second memory (new firmware), a controller (microprocessor), and a decoder.

b. Regarding claim 2, Nelson disclosed (column 2, line 22-29) the controller provides a control signal to the decoder to copy the old version of the software to the empty area of the first memory (alternate boot block), erase the old version of the software stored in an original area of the first memory (primary boot block), and copy the information stored in the second memory (new firmware) to the original area of the first memory (primary boot block).

c. Regarding claims 3 and 11, Nelson disclosed (column 2, line 33-37) monitoring means on power failure or hang-up (powerfail).

d. Regarding claim 5, Nelson disclosed (column 2, line 15-19 and 23-28) the decoder and monitoring means detects one failure (powerfail) and returns to the initial state (alternate boot block) of the network device.

e. Regarding claim 6, Nelson disclosed (column 2, line 15-19 and 23-28) the decoder operates that the network device can be restarted (non-volatile memory bit) based on the old version of the software (alternate boot block containing the old primary boot information).

f. Regarding claim 7, Nelson disclosed (in abstract, line 6-14 and 18-20, column 2, line 22-40, Fig. 1A and Fig. 2) a network device (system) capable of

upgrading software, comprising monitoring means (powerfail), a first memory (primary boot block), a second memory (alternate boot block), a third memory (new firmware), a controller (microprocessor), and a decoder.

g. Regarding claim 8, Nelson disclosed (column 2, line 15-19 and 23-28) checking one failure (powerfail) during the upgrade, to operate according to the new software or old software based (non-volatile memory bit) upon if a failure occurs.

h. Regarding claim 9, Nelson disclosed (column 2, line 22-29) copying the old version of software (old boot firmware) in a first area (primary boot block) to a second area (alternate boot block), erasing the old software in the first area, storing the new software (new firmware) in the first area.

i. Regarding claim 10, Nelson disclosed (column 2, line 33-37) checking (powerfail) during erasing and storing steps.

Nelson disclosed all limitations of claims 1-3 and 5-11. Claims 1-3 and 5-11 are rejected under 35 U.S.C. 102(b).

4. Claims 1-2, 4-10, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Jung Seung UK, (KR 10-2002-0041005), hereinafter referred as Jung.

a. Regarding claim 1, Jung disclosed (in abstract, line 11-33) a network device (system) capable of upgrading software, comprising monitoring means (upgrade problem processor), a first memory (third memory and part of fourth memory), a second memory (part of fourth memory), a controller (software processor), and a decoder (software change processor).

b. Regarding claim 2, Jung disclosed (in abstract, line 30-33) the controller provides a control signal to the decoder to copy the old version of the software to the empty area of the first memory (part of fourth memory), erase the old version of the software stored in an original area of the first memory (third memory), and copy the information stored in the second memory (part of fourth memory) to the original area of the first memory (third memory).

c. Regarding claims 4 and 12, Jung disclosed (in abstract, line 30-31) the monitoring means on failure in the network (validity of the remote data upgrade request, and standby time).

d. Regarding claim 5, Jung disclosed (in abstract, line 18-23 and 33-34) the decoder and monitoring means detects one failure and returns to the initial state (abnormal state correcting function) of the network device.

e. Regarding claim 6, Jung disclosed (in abstract, line 28-29 and 33-34) the decoder operates that the network device can be restarted (correct the abnormal state of the system) based on the old version of the software (present software).

f. Regarding claim 7, Jung disclosed (in abstract, line 11-33) a network device (system) capable of upgrading software, comprising monitoring means (upgrade problem processor), a first memory (third memory), a second memory (part of fourth memory), a third memory (part of fourth memory), a controller (software processor), and a decoder (software change processor).

g. Regarding claim 8, Jung disclosed (in abstract, line 19-23 and 30-33) checking one failure (upgrade state, validity of the remote data upgrade request, and standby time) during the upgrade, to operate according to the new software or old software based upon if a failure occurs (decide software upgrade state and correct the abnormal state of the system).

h. Regarding claim 9, Jung disclosed (in abstract, line 30-33) copying the old version of software (present software) in a first area (third memory) to a second area (part of fourth memory), erasing the old software in the first area, storing the new software (part of fourth memory) in the first area.

i. Regarding claim 10, Jung disclosed (in abstract, line 19-23 and 33-34) checking (software upgrade state and abnormal state) during erasing and storing steps.

Jung disclosed all limitations of claims 1-2, 4-10, and 12. Claims 1-2, 4-10, and 12 are rejected under 35 U.S.C. 102(e).

5. Claims 1 and 4-6 are rejected under 35 U.S.C. 102(a) as being anticipated by MITSUI, HITOSHI, (JP 2001117780 A), hereinafter referred as MITSUI.

a. Regarding claim 1, MITSUI disclosed (in abstract, line 1-10) a network device (information storage device) capable of upgrading software, comprising monitoring means (accident due to update), a first memory (first flash PROM0), a second memory (second flash PROM1), a controller (information storage device), and a decoder (storage device).

b. Regarding claim 4, MITSUI disclosed (in abstract, line 1-10) the monitoring means on failure in the network (download method).

c. Regarding claim 5, MITSUI disclosed (in abstract, line 1-10) the decoder and monitoring means detects one failure (accident due to download) and returns to the initial state (read from flash PROM0) of the network device.

d. Regarding claim 6, MITSUI disclosed (in abstract, line 1-10) the decoder operates that the network device can be restarted (accident in a short time) based on the old version of the software (read from flash PROM0).

MITSUI disclosed all limitations of claims 1 and 4-6. Claims 1 and 4-6 are rejected under 35 U.S.C. 102(a).

6. Claims 1 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by MATSUI et al., (JP 09138769 A), hereinafter referred as MATSUI.

a. Regarding claim 1, MATSUI disclosed (in abstract, line 1-17) a network device (client) capable of upgrading software, comprising monitoring means (file judging means), a first memory (the old version in an original space on a disk), a second memory (the replacement software, the delivered software), a controller (server), and a decoder (software recovering means).

b. Regarding claim 4, MATSUI disclosed (in abstract, line 9-10) the monitoring means on failure in the network (the failure of delivery).

c. Regarding claim 5, MATSUI disclosed (in abstract, line 1-10) the decoder and monitoring means detects one failure (the failure of delivery) and returns to the initial state (software recover) of the network device.

d. Regarding claim 6, MATSUI disclosed (in abstract, line 9-17) the decoder operates that the network device can be restarted (software recovering instructing means) based on the old version of the software (return the software into the original state before delivery).

MATSUI disclosed all limitations of claims 1 and 4-6. Claims 1 and 4-6 are rejected under 35 U.S.C. 102(b).

7. Claims 1-3 and 5-11 are rejected under 35 U.S.C. 102(b) as being anticipated by TAKEO, KAZUNORI, (JP 10105407 A), hereinafter referred as TAKEO.

a. Regarding claim 1, TAKEO disclosed (in abstract, line 1-16) a network device (central processing part) capable of upgrading software, comprising monitoring means (fault monitoring part), a first memory (back-up memory and part of operation memory), a second memory (part of operation memory), a controller (autonomous program fault restoring system), and a decoder (storage part).

b. Regarding claim 2, TAKEO disclosed (in abstract, line 6-16) the controller provides a control signal to the decoder to copy the old version of the software to the empty area of the first memory (back-up memory), erase the old version of the software stored in an original area of the first memory (operation memory), and copy the information stored in the second memory (down-load program) to the original area of the first memory (operation memory).

c. Regarding claims 3 and 11, TAKEO disclosed (in abstract, line 4-5) monitoring means on power failure or hang-up (fault occurs due to the program).

d. Regarding claim 5, TAKEO disclosed (in abstract, line 1-10) the decoder and monitoring means detects one failure (fault occurs due to the program) and returns to the initial state (software recover) of the network device.

e. Regarding claim 6, TAKEO disclosed (in abstract, line 3-5 and 10-12) the decoder operates that the network device can be restarted based on the old version of the software (transfer operation program preserved in back-up memory).

f. Regarding claim 7, TAKEO disclosed (in abstract, line 11-33) a network device capable of upgrading software, comprising monitoring means, a first memory (part of operation memory), a second memory (back-up memory), a third memory (part of operation memory), a controller, and a decode.

g. Regarding claim 8, TAKEO disclosed (in abstract, line 1-5) checking one failure (fault occurs due to the program) during the upgrade, to operate according to the new software (down-loaded program is executed) or old software based upon (restarting) if a failure occurs.

h. Regarding claim 9, TAKEO disclosed (in abstract, line 7-11) copying the old version of software in a first area (part of operation memory) to a second area (preserved in a back-up memory)), erasing the old software in the first area, storing the new software in the first area.

i. Regarding claim 10, TAKEO disclosed (9-13) checking (abnormality) during erasing and storing steps.

TAKEO disclosed all limitations of claims 1-3 and 5-11. Claims 1-3 and 5-11 are rejected under 35 U.S.C. 102(b).

8. Claims 8 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurihara, Nobumasa, (JP411328040A), hereinafter referred as Kurihara.

a. Regarding claim 8, Kurihara disclosed (in abstract, line 8-20) checking one failure during the upgrade, to operate according to the new software (updata) or old software (program before updata) based upon if a failure occurs (validation).

b. Regarding claim 12, Kurihara disclosed (in abstract, line 3-5) the monitoring means on failure in the network (download fault from higher order station to base station).

Kurihara disclosed all limitations of claims 8 and 12. Claims 8 and 12 are rejected under 35 U.S.C. 102(b).

9. Claims 8 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Huh, et al., (U.S. Patent Number 6,584,559), hereinafter referred as Huh.

a. Regarding claim 8, Huh disclosed (column 1, line 63-67) checking one failure (validation) during the upgrade, to operate according to the new software (first firmware) or old software (second firmware) based upon if a failure occurs.

b. Regarding claim 12, Huh disclosed (column 1, line 25-26) the monitoring means on failure in the network (if download valid).

Huh disclosed all limitations of claims 8 and 12. Claims 8 and 12 are rejected under 35 U.S.C. 102(e).

Claim Rejections – 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4-6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson, et al., (U.S. Patent Number 5,568,641), hereinafter referred as Nelson as applied to claims 1, 8 and 11 in paragraph 3 above, and further in view of Kurihara, Nobumasa, (JP411328040A), hereinafter referred as Kurihara.

a. Regarding claims 4 and 13, in addition to items a, c and g in paragraph 3 Kurihara disclosed (in abstract, line 3-5) the monitoring means on failure in the network (download fault from higher order station to base station).
b. Regarding claim 5, in addition to item a in paragraph 3 Kurihara disclosed (in abstract, line 15-20) the decoder returns to the initial state of the network device (reset and initialization if left invalidated).
c. Regarding claim 6, in addition to item a in paragraph 3 Kurihara disclosed (in abstract, line 15-20) the decoder operates that the network device can be restarted (executed) based on the old version of the software (program before updata).

Together Nelson and Kurihara disclosed all limitations of claims 4-6 and 13. Claims 4-6 and 13 are rejected under 35 U.S.C. 103(a).

11. Claims 3, 5, 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson, et al., (U.S. Patent Number 5,568,641), hereinafter referred as Nelson as applied to claims 1 and 8 in paragraph 3 above, and further in view of Grote, et al., ((U.S. Patent Number 5,432,927), hereinafter referred as Grote.

a. Regarding claims 3 and 11, in addition to items a and g Grote disclosed (column 2, line 57-61, column 4, line 41-44 and column 6, line 12-16) monitoring means on power failure or hang-up (watchdog timer).

b. Regarding claim 5, in addition to item a in paragraph 3 Grote disclosed (column 2, line 57-61, column 4, line 22-25 and column 6, line 12-16) the decoder returns to the initial state of the network device (commence the next reboot, reset).

c. Regarding claim 6, in addition to item a in paragraph 3 Grote disclosed (column 6, line 12-16) the decoder operates that the network device can be restarted (execution of bootstrap loader sequence) based on the old version of the software (auxiliary flash sets).

Together Nelson and Grote disclosed all limitations of claims 3, 5, 6 and 11. Claims 3, 5, 6 and 11 are rejected under 35 U.S.C. 103(a).

12. Claims 4-6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson, et al., (U.S. Patent Number 5,568,641), hereinafter referred as Nelson as

applied to claims 1, 8 and 11 in paragraph 3 above, and further in view of Huh, et al., (U.S. Patent Number 6,584,559), hereinafter referred as Huh.

a. Regarding claims 4 and 13, in addition to items a, c and g in paragraph 3 Huh disclosed (column 1, line 25-26) the monitoring means on failure in the network (if download valid).

b. Regarding claim 5, in addition to item a in paragraph 3 Huh disclosed (column 4, line 14-19) the decoder and monitoring means detects one failure (download successful) and returns to the initial state (retry) of the network device.

c. Regarding claim 6, in addition to item a in paragraph 3 Huh disclosed (column 5, line 4-9) the decoder operates that the network device can be restarted (boot) based on the old version of the software (second firmware).

Together Nelson and Huh disclosed all limitations of claims 4-6 and 13. Claims 4-6 and 13 are rejected under 35 U.S.C. 103(a).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A. Cuchlinski can be reached on (571) 272-3925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the statu9s of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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